

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1-20. (Cancelled)

21. (New) In a snow-trail grooming vehicle having a drive motor for providing driving power, a chain or track drive, further consumers of driving power, means for distributing driving power onto the chain or track drive and the further consumers, and a central processing system for controlling said means for distributing driving power, a method for controlling the snow-trail grooming vehicle comprising the steps of: prioritizing of one of the chain or track drive, further consumers and groups of further consumers in a changeable way; and distributing the driving power in dependency of the prioritizing step.

22. (New) The method according to claim 21, wherein the further consumers comprise at least one of a snow-trail grooming device and a cable winch, and further comprising the step of selectively prioritizing one of the chain or track drive, the snow-trail grooming device and the cable winch.

23. (New) The method according to claim 21, wherein the prioritizing step further includes specifying threshold values for the driving power available to at least one of the further consumers and the chain or track drive.

24. (New) The method according to claim 21, wherein the prioritizing step further includes specifying threshold values for at least one of output parameters of the chain or track drive and output parameters of the further consumers.

25. (New) The method according to claim 21, further comprising the step of detecting environmental parameters and suggesting a change of the prioritizing, in dependency of the environmental parameters, by the central processing system to an operator.

26. (New) The method according to claim 21 further comprising the step of detecting environmental parameters and automatically carrying out a change of the prioritizing by the central processing system in dependency of the environmental parameters.

27. (New) The method according to claim 21, wherein the snow-trail grooming vehicle further has a hydraulic pump driven by the drive motor and a hydrostatic gear of the chain or track drive and wherein the method further comprises the step of correlating the adjustments of the drive motor, the hydraulic pump driven by the drive motor and the hydrostatic gear of the chain or track drive under the control of the central processing system in order to obtain the desired distribution of the driving power with little power loss.

28. (New) The method according to claim 21, wherein the snow-trail grooming vehicle further has a hydraulic brake or a hydraulic pump coupled with the drive motor, said hydraulic brake or hydraulic pump being able to provide braking power, the method further comprising the step of distributing the braking power onto the further consumers under control of the central processing system.

29. (New) In a snow-trail grooming vehicle having a drive motor for providing driving power, a chain or track drive, further consumers of driving power, and a central processing system, a method for controlling the snow-trail grooming vehicle comprising the steps of:

specifying driving programs by means of the central processing system, said driving programs causing the central processing system to suggest adjustments of at least one of the drive motor, the chain or track drive and further consumers to an operator, or to automatically carry out such adjustments.

30. (New) The method according to claim 29, wherein the adjustments of at least one of the drive motor, the chain or track drive and further consumers are suggested or automatically carried out in dependency of environmental parameters.

31. (New) In a snow-trail grooming vehicle having a drive motor for providing driving energy, a chain or track drive, and a central processing system, a method for controlling the snow-trail grooming vehicle comprising the steps of:

carrying out a resistance measurement of the snow in the area of the snow trail grooming vehicle; and subsequently processing the measured resistance values in the central processing system in order to determine the density of the snow.

32. (New) The method according to claim 31, wherein the resistance measurement is accomplished by means of at least two electrodes which are in contact with the snow in the area

of the snow trail grooming vehicle and which move along with the snow trail grooming vehicle.

33. (New) In a snow-trail grooming vehicle having a drive motor for providing driving energy, a chain or track drive, a central processing system, and a navigational system, a method for controlling the snow-trail grooming vehicle comprising the steps of:

measuring of a true traveling speed of the vehicle above ground by means of the navigational system;

measuring of a chain speed; and

determining a slip of the chains by means of processing the true traveling speed and the chain speed in the central processing system.

34. (New) The method according to claim 33, further comprising the steps of:

checking a chain tension and a chain speed; and

adjusting the chain tension and the chain speed under control of the central processing system in dependency of the determined slip of the chains.

35. (New) The method according to claim 33, wherein the snow trail grooming vehicle further has at least one of a snow trail grooming device and a cable winch, the method further comprising the steps of:

checking adjustments of at least one of the snow trail grooming device and the cable winch; and

adjusting at least one of the snow trail grooming device and the cable winch under control of the central processing system in dependency of the determined slip of the chains.

36. (New) The method according to claim 33, wherein the navigational system contains at least one of a satellite navigational system, a terrestrial navigational system and an inertial navigational system, and wherein data collected therefrom are processed in the central processing system.

37. (New) A snow trail grooming vehicle comprising:  
a drive motor for providing driving power,  
a chain or track drive,  
further consumers of driving power,  
means for distributing driving power onto the chain or track drive and the further consumers,  
and a central processing system for controlling said means for distributing driving power,  
wherein said central processing system has means for specifying a changeable prioritizing of at least one of the chain or track drive and the further consumers of driving power.

38. (New) The snow trail grooming vehicle according to claim 37, wherein the central processing system has means for specifying threshold values for the driving power, said threshold values limiting the driving power made available to the chain or track drive and the further consumers.

39. (New) The snow trail grooming vehicle according to claim 37, wherein the central processing system has means for specifying threshold values for output parameters of the chain or track drive and the further consumers.

40. (New) The snow trail grooming vehicle according to claim 37, further comprising means for determining environmental parameters.

41. (New) The snow trail grooming vehicle according to claim 40, wherein the environmental parameters comprise at

least one of slope incline, cable-winch operation, density of the snow, temperature of the snow and height of the snow.

42. (New) The snow trail grooming vehicle according to claim 37, further comprising a controllable hydraulic pump driven by the drive motor, and at least one controllable hydrostatic gear for the chain or track drive, wherein the central processing system includes means for correlating adjustments of the drive motor, the hydraulic pump and the at least one hydrostatic gear, such correlating being performed with regard to little loss.

43. (New) The snow trail grooming vehicle according to claim 37, further comprising at least one hydraulic brake or hydraulic pump coupled with the chain or track drive, the central processing system having means for distributing a braking power, which is produced by the at least one hydraulic brake or hydraulic pump, onto the further consumers.

44. (New) A snow trail grooming vehicle comprising:  
a drive motor for providing driving energy  
a chain or track drive,  
a central processing system, and  
at least two electrodes arranged in the form of a rake, said electrodes being adapted to contact the snow in the area of the snow trail grooming vehicle in order to carry out a resistance measurement, and  
said central processing system having means for determining a density of the snow based on said resistance measurement.